

September 22, 2000

US EPA Region VIII
Attn. Mr. Paul Peronard, 8EPR-EP
On-Scene Coordinator
999 18th Street, Suite 500
Denver, CO. 80202-2466

501 Mineral Avenue
Libby, MT 59923

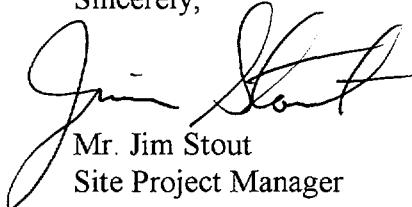
RE: US EPA Region VIII Unilateral Administrative Order (UAO) No. CERCLA-8-2000-10, Libby, Mt. Export Plant Weekly Report for September 08-21, 2000.

Dear Mr. Peronard:

Per the above referenced Unilateral Administrative Order, please find attached a weekly report describing the activities that occurred during the two-week period of September 08-21, 2000, at the Libby, Mt. Export Plant. The submittal of the weekly report for September 08-14, 2000 was delayed due to other scheduling activities being a higher priority, per your approval on September 15, 2000.

Please call if you have any questions concerning this submittal.

Sincerely,



Mr. Jim Stout
Site Project Manager

Attachment

cc:	John Constan	Montana DEQ
	Ken Lund	Holme, Roberts & Owen
	Bob Mariam	W.R. Grace
	David Cleary	W.R. Grace
	Karen Brown	W.R. Grace
	Matthew Cohn	US EPA
	Ray Lidstrom	URS

URS Corporation
707 17th Street, Suite 3400
Denver, CO 80202
Tel: 303.292.0800
Fax: 303.292.5860

URS

Project No. 805169
File Code No. 6.Z.b.1.8
Doc No. pg 1 of 5

September 22, 2000

US EPA Region VIII
Attn. Mr. Paul Peronard, 8EPR-EP
On-Scene Coordinator
999 18th Street, Suite 500
Denver, CO. 80202-2466

501 Mineral Avenue
Libby, MT 59923

Dear Mr. Peronard:

Progress Report for the Two-Week Period of September 08 – September 21, 2000

The Weekly Progress Report for the week of September 01 - 07, 2000 was submitted to the EPA and State on September 08, 2000. On September 15, 2000, Paul Peronard agreed that it was not necessary to submit a weekly progress report on September 15, 2000.

At Millwork West

- Millwork West continued planing lumber through September 21, 2000.
- EPA obtained a high TEM result in Millwork West's retail office on September 9, 2000.
- The retail office was HEPA vacuumed and wet wiped on September 11, 2000, per EPA request.
- The retail office was re-cleaned including the heater and air-conditioner on September 12, 2000, per EPA request.
- The EPA collected final clearance air samples at the retail office on September 12, 2000, with results passing.
- A task list for the Millwork West move to new buildings was developed and submitted to EPA.
- Miscellaneous office furniture and displays were cleaned and moved back to the retail office on September 14, 2000.
- Cleaning activities were initiated at the Small Shed on September 15, 2000.
- Cleaning activities were completed and clearance samples were taken at the Small Shed on September 18, 2000, with passing results.
- A layer of poly was installed outside the Small Shed entrance so there will be no recontamination of the building, from outside soil.
- Millwork West identified items in the warehouse for disposal at the mine.
- Cleaning of the warehouse was initiated. Some materials have been cleaned and moved into the small shed.

At Millwork West Temporary Relocation Site

- The first piece of siding was installed on the large pole building September 8, 2000.
- The corner posts for the small building were set on September 12, 2000 and the walls were near completion on September 21, 2000.
- An engineer was hired to design interior shelving at new pole buildings.
- Utility locates were called for the new sign and the new fire hydrants.
- The fences at the front of the property were removed. The bushes at the front of the property were removed and the new Millwork West sign was installed.
- The temporary fencing for the new pole buildings was delivered to the site on September 15, 2000.
- A contractor started installation of the two fire hydrants on September 20, 2000.
- Construction of the interior shelving at new pole buildings was started on September 21, 2000.
- Citizens' Communication began installation of new phone service at new location on September 21, 2000.

At Mine Disposal Site

- Full level C PPE is now required at the mine site per Paul Peronard.
- URS, EPA and State of Montana excavated first test pit at Glory Hole on September 14, 2000 and a second test pit on September 15, 2000.
- The drilling of monitoring well MW-1 at the glory hole began on September 21, 2000.

Problems and Issues

- Approved copies of Addendum No. 4, Addendum No. 5 and Addendum No.6 were received.
- Perimeter air sampling is now being required by the EPA when work is being conducted, at the seven previously designated locations at the Export Plant. These samples are being collected in areas where the public has complete access.
- Mel Burnett (Millwork West) continues to use the rooftops and spacer blocks previously purchased by W.R. Grace. This material is considered contaminated.
- All visitors, workers, and contractors conducting activities within the mine site must adhere to level C PPE restrictions per EPA request on August 24, 2000.

Analytical Data Received

- EPA conducted aggressive clearance air testing at the Small Shed.

URS	
Project No.	805169
File Code No.	6.Z.b.1.8
Doc No.	pg 3 of 5

- EPA's analytical results of the Small Shed clearance air samples indicated that all clearance criteria had been met.
- URS submitted for TEM analysis the highest counts from each of six days during August 2000 at the Export Plant (results attached).

Material Movement and Disposal

- Eight truckloads of debris created from encapsulation and decon dismantling activities at the Export Plant were taken to the mine disposal area.

Health and Safety

- All visitors, workers, and contractors conducting activities within the mine site must adhere to level C PPE restrictions.
- No incidents or accidents.

Anticipated Developments Next Week

- The Millwork West planer run will continue.
- The cleaning of material from the warehouse and its relocation to the Small Shed will continue, as well as the removal of materials for disposal at the mine.
- Construction of both the large and small pole buildings will continue.
- B&B Drilling will flush-mount the two monitoring wells at the pole building location.
- Final grading and installation of temporary fencing at the new building location will be initiated.
- Citizen's Communication will install phone service at new location.
- A contractor will complete installation of two fire hydrants at new pole building location.
- A contractor will complete the construction of interior shelving and supports for stand-up lumber in the large pole building.
- A contractor will complete the installation of new monitoring wells around the glory hole at the mine.

Planned Resolutions or Anticipated Problems

- A signed copy of Addendum No. 2, updating the implementation schedule for the temporary relocation of Millwork West's business, has not been received.
- Issues concerning use of rooftops and spacer blocks by Millwork West.

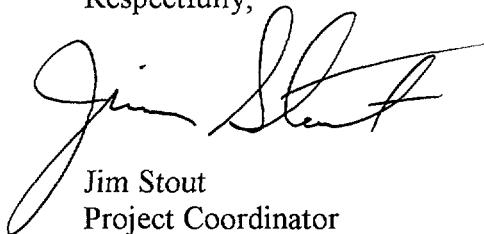
URS Corporation
707 17th Street, Suite 3400
Denver, CO 80202
Tel: 303.292.0800
Fax: 303.292.5860

URS
Project No. <u>805169</u>
File Code No. <u>6.2.b.1.8</u>
Doc No. <u>Pg 4 of 5</u>

Schedule

- Both pole structures at the Millwork West temporary relocation site will be completed by October 1, 2000.
- The final movement of the Millwork West retail business will be completed by October 1, 2000.

Respectfully,



Jim Stout
Project Coordinator
Libby Asbestos Site

Attachments (1)

RELINQUISHED BY:

RECEIVED BY:

SIGNATURE: _____ SIGNATURE: _____

PRINT NAME: _____ PRINT NAME: _____

DATE/TIME: _____ DATE/TIME: _____

Test Report
Total Asbestos Structure Concentration
ISO 10312 Analysis
Project LAH004417-S

RJ Lee Group Sample Number	Client Sample Number		Area		Structures Chr	Analytical Sensitivity (S/sq. mm)	(S/cc)	Concentration		Analysis Date		
			Filter Area (sq mm)	Volume [#] (Liters)				(S/sq. mm)	(S/cc)			
0113690HT	A04-22	Aug 22	385	4907.70	0.0881	0	0	11.4	0.0009	<11.4*	<0.0009*	9/12/0
0113691HT	A03-23	Aug 23	385	4995.60	0.0881	0	0	11.4	0.0009	<11.4*	<0.0009*	9/12/0
0113692HT	A10-24	Aug 24	385	927.20	0.0881	0	0	11.4	0.0047	<11.4*	<0.0047*	9/12/0
0113693HT	A04-25	Aug 25	385	3354.38	0.0881	0	0	11.4	0.0013	<11.4*	<0.0013*	9/12/0
0113694HT	PM08-28	Aug 26	385	3135.02	0.0881	0	0	11.4	0.0014	<11.4*	<0.0014*	9/14/0
0113695HT	PM07-29	Aug 27	385	2579.82	0.0881	0	0	11.4	0.0017	<11.4*	<0.0017*	9/13/0

Worksheet counts from Export that
parameter samples for each of these days

URS COPY	
Project No.	805169
File Code No.	4.5.b.4.78
Doc No.	

Project No.	
File Code No.	
Doc No.	

URS

[#] Volumes provided by URS Corporation for Project Libby, MT were used to calculate analytical results and sensitivities.
Analytical sensitivity is the calculated concentration based on one structure in the area analyzed.

Chr - Chrysotile, Amp - Amphibole

Samples received on: Monday, September 11, 2000

* Results Less Than Analytical Sensitivity.

Authorized Signature

Kimberly A. Allison, Manager-TEM Analysis

Date Date Monday, September 18, 2000

RJ Lee Group, Inc.
Headquarters

350 Hochberg Road
Monroeville, PA 15146
Test Report Page: 1 of 1

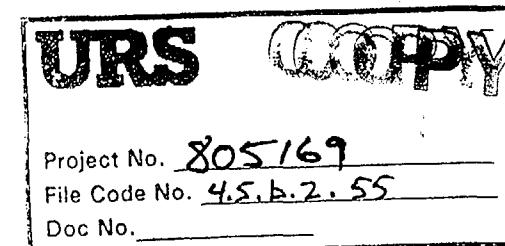
Phone (724) 325-1776
Fax (724) 733-1799

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 7/12/00	CLIENT: AC & S PROJECT #: 01001-043	PROJECT CONTACT: Chuck Shaw	PROJECT LOCATION: WR Grace Vermiculite Plant WORK AREA: Libby, MT	SAMPLING REP: Patrick McGuire ANALYSIS BY: Patrick McGuire	
AMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input type="checkbox"/> ID _____ Other: DC-Lite Dry Cal DC-L 739	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other +45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mft. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION #/cc other ppm mg/M ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
P10	P	Inside Millwork West office - worn by - Guillermo Martinez	Office cleaning	1437	1643	126	2.08	2.05	2.07	260.82	0.010	12.0/100	0.023
P11	P	Inside Millwork West office - worn by - Margarito Rivera	Office cleaning	1439	1645	126	1.95	1.94	1.95	245.70	0.011	13.9/100	0.026
Blind Recount													

Key:	Sample Type:	P = Personal	BAK = Background	Activity:	PREP = Work Area Preparation	BO = Bagout
	Ex = Excursion	A = Ambient Air	REM = Removal		TD = Tear Down	
	IWA = Inside Work Area	HEX = HEPA Exhaust	GB = Glovebag		PP = Paint Prep	
	OWA = Outside Work Area	CL = Clearance Sample	FC = Final Cleaning			



KOCH ENVIRONMENTAL HEALTH, INC.
7342 South Moore Court
Littleton, CO 80127
Phone: (303) 932-8484 FAX: (303) 932-8585

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: ACI S	Project Contact: Chuck Shaw	Location: WR Grace Vermiculite Plant Libby, MT	KEH Rep: Patrick McGuire	
Project: 01001-G13			Analysis By: Patrick McGuire	
Date: 9/12/00	Calibration: <input checked="" type="checkbox"/> Rotameter _____ ID <input checked="" type="checkbox"/> Other DC-Lite ID Dry Cal	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm other _____ sq mm	PCM Filter: <input checked="" type="checkbox"/> 0.8 um 25mm Mft. _____ <input checked="" type="checkbox"/> 0.8 um 37mm Lot# _____	Other Media: _____ Type Mft. _____ _____ Type Mft. _____
Name: Guillermo Martinez	Name: Margarito Rivera	Name: _____	Name: _____	
SSN: 622-09-2411	SSN: 438-20-3756	SSN: _____	SSN: _____	

TWA: 0.006 f/cc

TWA: 0.007 f/cc

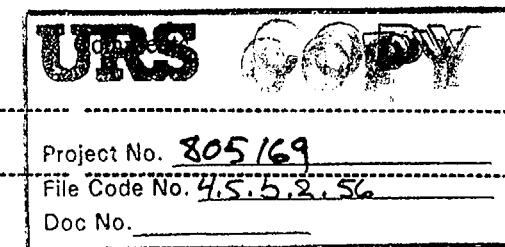
TWA: _____

TWA: _____

Comments:
2.898

Comments: 3.276 / 48(

Comments:



KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: <i>9/12/00</i>	KEH PROJECT #: 01001 - 043 MICROSCOPE ID #: 1	KEH REP: <i>Patrick McGuire</i> ANALYST: <i>Patrick McGuire</i>						
SAMPLE #	FIBER COUNT	F/N	F/N - B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
P10	12.0	12.0 / 100	12.0 / 100, 00785	15.24	260.82	0.010	0.023	—
P11	13.0	13.0 / 100	13.0 / 100, 00785	16.54	245.70	0.011	0.026	—
Blind Recount								

SAMPLING INFORMATION:

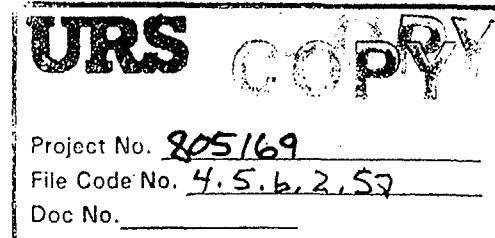
Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> other (list) _____	NIOSH 7400 Method A Rules <input type="checkbox"/>
		Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: <i>9/13/00</i>	ANALYST: <i>Patrick McGuire</i>	SIGNATURE: <i>Patrick McGuire</i>
----------------------	---------------------------------	-----------------------------------



KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 7/12/01	CLIENT: URS Radian PROJECT #: 21001-001	PROJECT CONTACT: Tim Gish	PROJECT LOCATION: UR Grace Vermiculite Plant WORK AREA: Libby, MT	SAMPLING REP: Patrick McGuire ANALYSIS BY: Patrick McGuire	
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method:	PUMP CALIBRATION: Rotameter <input type="checkbox"/> ID _____ Other: DC-Lite Dry Gel DL-L 739	FILTER TYPE: <input checked="" type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other -45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> fcc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	FIELD BLANK
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	9/100	FIELD BLANK
A03		Location #1 - North of Pole barn - on perimeter	—	0801	1635	514	5.18	5.60	5.39	2770.46	0.001	2.5/100	< LOQ
A04		West of Player bldg. About 20 ft. east of location #3	—	0813	1638	505	5.64	6.36	6.00	3030.00	0.001	10.0/100	0.002
A05		South of Pole barn - against building	—	0820	1647	507	5.27	5.66	5.47	2773.29	0.001	44.0/100	LOQ
A06		Inside Millwork West office	—	0825	1350	325	3.40	3.48	3.44	1118.00	0.002	14.0/100	0.006
A07	OWA	Millwork West office North	Office cleaning	1416	1704	168	7.02	7.14	7.08	1189.44	0.002	3.0/100	< LOQ
A08		Millwork West office East	Office cleaning	1419	1706	167	6.65	6.90	6.78	1132.26	0.002	3.5/100	LOQ
A09		Millwork West office south	Office cleaning	1422	1708	162	8.24	8.46	8.35	1386.10	0.002	4.0/100	< LOQ
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Blind Recount	—	—	—	—	—	—	—	—	—	—	—	—	—

* Mel unplugged our pumps right at the end of testing, so we plugged it back in & took our final calibrations.

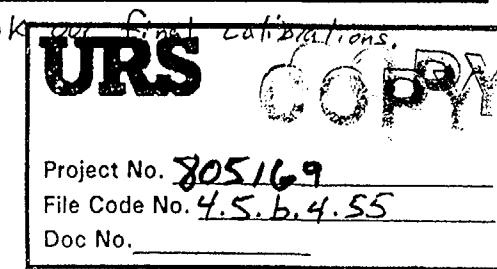
Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM = Removal
GB = Glovebag
FC = Final Cleaning

BO = Bagout
TD = Tear Down
PP = Paint Prep



KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: <i>9/12/00</i>	KEH PROJECT #: 21001-001 MICROSCOPE ID #:						KEH REP: <i>Patrick McGuire</i>	
SAMPLE #	FIBER COUNT	F/N	F/N - B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
A03	2.5	2.5/100	2.5/100/.00785	3.18	2770.46	0.001	< LOQ	—
A04	10.0	10.0/100	10.0/100/.00785	12.74	3030.07	0.001	0.002	—
A05	3.0	3.0/100	3.0/100/.00785	3.82	2773.29	0.001	LOQ	—
A06	14.0	14.0/100	14.0/100/.00785	17.83	1118.00	0.002	0.006	—
A07	3.0	3.0/100	3.0/100/.00785	3.82	1189.44	0.002	< LOQ	—
A08	3.5	3.5/100	3.5/100/.00785	4.46	1132.26	0.002	LOQ	—
A09	4.0	4.0/100	4.0/100/.00785	5.10	1386.10	0.002	< LOQ	—
—	—	—	—	—	—	—	—	—
Blind Recount	—	—	—	—	—	—	—	—

SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² other (list) _____	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: <i>9/13/00</i>	ANALYST: <i>Patrick McGuire</i>	SIGNATURE: <i>Patrick McGuire</i>
----------------------	---------------------------------	-----------------------------------

URS COPY

Project No. *805169*
File Code No. *4.5.b.4.56*
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 7/13/01	CLIENT: URS Radian PROJECT #: 21001-001	PROJECT CONTACT: Tim Gish	PROJECT LOCATION: UR Grace Vermiculite Plant WORK AREA: Libby, MT	SAMPLING REP: Patrick McGurk ANALYSIS BY: Patrick McGurk	
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input type="checkbox"/> ID _____ Other: DC-Lite Day Cal DC-L739	FILTER TYPE: — 0.8 um 25 mm MCE — charcoal tubes — Silica Gel Other -45 TGM	TEM FILTER: ✓ MCE <0.45um 25mm PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: ✓ 385 mm ² mm ² NA	MICROSCOPE FIELD AREA: ✓ 0.00785 mm ² mm ² NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN.)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION — %/100 — ppm — mg/M ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	9/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	1.9/100	Field Blank
103/1.87	Perimeter	Location #1 - North of Pole Barn or perimeter	—	07:17:559	14:02:492	6:45:52	5.34	5.70	5.52	2715.84	0.001	4.5/100	3 LOQ
104/1.89		west of Planet building about 20 Ft. east of location #3	—	07:55:1602	14:07:487	6:11	5.38	5.25	2556.75	0.001	8.5/100	0.002	
105/1.09	↓	South of against Pole Barn	—	08:03:1607	14:04:484	6:52	7.08	6.80	3291.20	0.001	12.0/100	0.002	
Blind Recount													

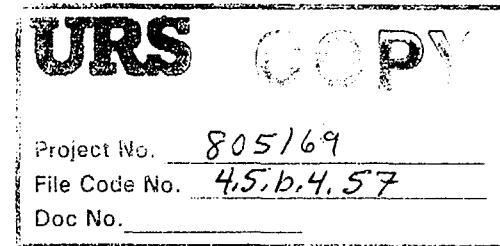
Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep



KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/13/00		KEH PROJECT #: 21001-001 MICROSCOPE ID #: 1			KEH REP: Patrick McGovern ANALYST: Patrick McGovern			
SAMPLE #	FIBER COUNT	F/N	F/N -B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	9/100	—	—	—	—	—	Field Blank
Field Blank B02	1.0	1.0/100	—	—	—	—	—	Field Blank
A03	4.5	4.5/100	4.9/100, 0.0785	5.10	2715.84	0.001	LOQ	—
A04	8.5	8.5/100	8.9/100, 0.0785	10.19	2556.75	0.001	0.002	—
A05	12.0	12.0/100	11.5/100, 0.0785	14.65	3291.20	0.001	0.002	—
Blind Recount								

SAMPLING INFORMATION:

Effective Collection Area of Filter:
 385 mm², 25 mm filter
 855 mm², 37 mm filter

Microscope Field Area:
 0.00785 mm²
 other (list) _____

NIOSH 7400 Method A Rules

Other Method

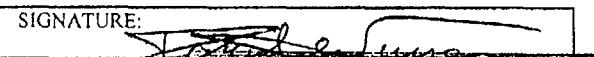
ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: phase test micrometer adjust field iris adjust phase rings focus on samples

ANALYST INFORMATION:

DATE: 9/13/00

ANALYST: Patrick McGovern

SIGNATURE: 

URS	JP
Project No. 805169	File Code No. 4.5, b, 4, 58
Doc No.	

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/14/00	CLIENT: URS Radian PROJECT #: ZJ001-001	PROJECT CONTACT: Tim Gisl	PROJECT LOCATION: URS Grace Vermiculite Mine Excavation WORK AREA: Glory Hole #1 - Lithia, UT	SAMPLING REP: Patrick McGuire								
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input type="checkbox"/> ID _____ Other: DC-Lite Digi-Cal - DC-6739	FILTER TYPE: <input type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel <input type="checkbox"/> Other .45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfg. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA							
SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)	FLOW RATE (L/MIN.)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³	
B01	Field Blank	—	—	Start — Stop — Total —	Start — Stop — Avg. —	—	—	—	—	—	1.0/00	Field Blank
B02	Field Blank	—	—	Start — Stop — Total —	Start — Stop — Avg. —	—	—	—	—	0/00	Field Blank	
A03	work area	Mine excavation Glory Hole - WEST	Excavation	1428 1610 102	1.5 1.3 1.4	142.8	0.019	2.0/00	< LOQ			
A04	work area	Mine excavation Glory Hole - EAST		1435 1613 98	1.5 1.5 1.5	147.0	0.018	1.0/00	< LOQ			
P05	f	Glory Hole - mine excavation - work by - Grant Garcia	↓	1413 1605 112	1.5 1.5 1.5	168.0	0.016	25.5/00	0.073			
Blind Recount												

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep

URS

Project No. 805169
File Code No. 4.5.b.4.59
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/14/00		KEH PROJECT #: Z1001-001				KEH REP: Patrick McFarren ANALYST: Patrick McFarren			
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS	
Field Blank B01	1.0	100/00	—	—	—	—	—	Field Blank	
Field Blank B02	1%	0/100	—	—	—	—	—	Field Blank	
A03	2.0	2.0/100	1.5/100/00785	1.91	142.83	0.019	< LOQ	—	
A04	1.0	1.0/100	0.5/100/00785	0.64	147.00	0.018	< LOQ	—	
P05	25.5	25.5/100	25.0/100/00785	31.85	168.00	0.016	0.073	—	
Blind Recount									

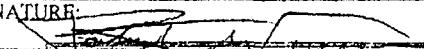
SAMPLING INFORMATION:

Effective Collection Area of Filter: 385 mm ² , 25 mm filter 855 mm ² , 37 mm filter	Microscope Field Area: 0.00785 mm ² other (list)	NIOSH 7400 Method A Rules Other Method
--	---	---

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: <input checked="" type="checkbox"/> phase test	<input type="checkbox"/> micrometer	<input type="checkbox"/> adjust field iris	<input type="checkbox"/> adjust phase rings	<input type="checkbox"/> focus on samples
--	-------------------------------------	--	---	---

ANALYST INFORMATION:

DATE: 9/14/00	ANALYST: Patrick McFarren	SIGNATURE: 
---------------	---------------------------	--

URS

Project No. 805169
File Code No. 4,5,b,4,60
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/15/00	CLIENT: AC & S PROJECT #: 01001-043	PROJECT CONTACT: Chuck Shaw	PROJECT LOCATION: WIR Grace Vermiculite plant Storage shed WORK AREA: Libby, MT	SAMPLING REP: Patrick McCarron	
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: <input type="checkbox"/>	FILTER TYPE: <input checked="" type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other -45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfl. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank												Field Blank
B02	Field Blank												Field Blank
P03	P	Inside Storage shed - worn by - Guillermo Martinez	Storage shed cleaning	1823	2115	172	1.5	1.5	1.5	258.00	0.011	52.5 /100	0.099
P04	↓	Inside Storage shed worn by - Cayetano Montoya		1827	2015	108	1.5	1.5	1.5	162.00	0.017	23.5 /100	0.070
P05	Zx			2015	2045	30	1.5	1.5	1.5	45.00	0.060	10.0 /100	0.104
P06	P			2045	2115	30	1.5	1.5	1.5	45.00	0.060	5.0 /100	< LOQ
Blind Recount													

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep

URS COPY

Project No. 805169
File Code No. 4.5.6.2.58
Doc No. _____

URS

KOCH ENVIRONMENTAL HEALTH, INC.
 7342 South Moore Court
 Littleton, CO 80127
 Phone: (303) 932-8484 FAX: (303) 932-8585

Project No. 805169
 File Code No. 4.5.b.2.59
 Doc No.

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: AC & S		Project Contact: Chuck Shaw				Location: WR Grace Vermiculite Plant Libby, MT			KEH Rep: Patrick McGuire		
Project: 01001 - 043									Analysis By: Patrick McGuire		
Date: 7/15/00	Calibration: <input checked="" type="checkbox"/> Rotameter <input type="checkbox"/> Other		ID	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm <input type="checkbox"/> other _____ sq mm			PCM Filter: <input checked="" type="checkbox"/> 0.8 um25mm Mft. <input type="checkbox"/> 0.8 um37mm Lot#		Other Media: _____ Type Mft. _____ Type Mft.		
Name: Guillermo Martinez	Name: Cayetano Montoya		Name: _____			Name: _____					
SSN: 622-09-2411	SSN: 645-22-6340		SSN: _____			SSN: _____					

TOTAL			TOTAL			TOTAL			TOTAL			TOTAL			
Sample #	Minutes	Volume	F/cc	Sample #	Minutes	Volume	F/cc	Sample #	Minutes	Volume	F/cc	Sample #	Minutes	Volume	F/cc
P03	172	258.00	0.099	P04	108	162.00	0.070								
				P05	30	45.00	0.104								
				P06	30	45.00	< LOQ								

TWA: 0.035 F/cc

TWA: 0.022 F/cc

TWA: —

TWA: —

Comments:

17.028
480

Comments:

7.56 + 3.12 + 0.03
480

Comments:

10.71
480

Comments

URS

Project No. 805169
 File Code No. 4.5.b. 2.60
 Doc No.

KOCH ENVIRONMENTAL HEALTH, INC.
 ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/15/00	KEH PROJECT #: 01001-043				KEH REP: Patrick McGuire			
SAMPLE #	MICROSCOPE ID #:	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	1.0	1.0/100	—	—	—	—	—	Field Blank
P03	52.5	52.5/100	52.0/100/0.00785	66.24	258.00	0.011	0.099	—
P04	23.5	23.5/100	23.0/100/0.00785	29.30	162.00	0.016	0.070	—
P05	10.0	10.0/100	9.5/100/0.00785	12.10	45.00	0.060	0.104	—
P06	5.0	5.0/100	4.5/100/0.00785	5.73	45.00	0.060	< LOQ	—
Blind Recount								

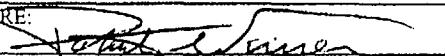
SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> other (list) _____	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method <input type="checkbox"/>

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: 9/16/00	ANALYST: Patrick McGuire	SIGNATURE: 
---------------	--------------------------	--

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/15/01	CLIENT: URS Radian PROJECT #: 21001-001	PROJECT CONTACT: Tim Gish	PROJECT LOCATION: WR 6122 Vermiculite Plant WORK AREA: Libby, MT - 9 floors SW	SAMPLING REP: Patrick McGuire
------------------	--	------------------------------	--	----------------------------------

SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input type="checkbox"/> ID _____ Other: DC-Lite Dry Gel DC-L737	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other .75 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² NA
--	--	---	---	--	---

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	1/100	Field Blank
PM03 / PA03/A-09	Perimeter	Location #1 - North of Pole Barn - on perimeter	—	1745	2119	214	5.00	5.00	5.00	1070.00	0.003	< LOQ	< LOQ
PM04 / PA04/A-81		Location #2 - NW of Planer Building - on perimeter	—	1749	2142	233	5.00	5.00	5.00	1165.00	0.002	< LOQ	< LOQ
PM05 / PA05/A-23		Location #3 - west of Planer Building - on perimeter	—	1752	2145	233	6.00	6.00	6.00	1398.00	0.002	< LOQ	< LOQ
PM06 / PA06/A-25		Location #4 - SW of Planer building - on perimeter	—	1759	2124	205	5.00	5.00	5.00	1025.00	0.003	< LOQ	< LOQ
PM07 / PA07/A-24		Location #5 - South of warehouse building - on perimeter	—	1603	2129	206	5.15	5.25	5.50	1133.00	0.002	LOQ	LOQ
PM08 / PA08/A-1		Location #6 - NE of Lumber storage building - on perimeter	—	1830	2136	186	6.00	6.00	6.00	1116.00	0.002	< LOQ	< LOQ
PM09 / PA09/A-21		Location #7 - NE corner of property - on stop sign - figure 37	—	1731	2150	259	6.00 5.50	5.75	5.75	1489.25	0.002	< LOQ	< LOQ
Blind Recount													

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep

URS CODY

Project No. 805169
File Code No. 4.S.6.4.61
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: <i>9/15/00</i>	KEH PROJECT #: Z1601-001 MICROSCOPE ID #:						KEH REP: <i>Patrick McGurran</i>	ANALYST: <i>Patrick McGurran</i>
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
PM103	3.0	3.0/100	2.5/100/.00785	3.18	1070.00	0.003	< LOQ	—
PM104	1.0	1.0/100	0.5/100/.00785	0.64	1165.00	0.002	< LOQ	—
PM105	4.0	4.0/100	3.65/100/.00785	4.46	1398.00	0.002	< LOQ	—
PM106	1.0	1.0/100	0.5/100/.00785	0.64	1025.00	0.003	< LOQ	—
PM107	5.5	5.5/100	5.0/100/.00785	6.37	1133.00	0.002	LOQ	—
PM108	1.5	1.5/100	1.5/100/.00785	1.27	1116.00	0.002	< LOQ	—
PM109	1.0	1.0/100	0.5/100/.00785	0.64	1489.25	0.003	< LOQ	—
—	—	—	—	—	—	—	—	—
Blind Recount	—	—	—	—	—	—	—	—

SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² other (list) _____	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: <i>9/16/00</i>	ANALYST: <i>Patrick McGurran</i>	SIGNATURE: <i>Patrick McGurran</i>
----------------------	----------------------------------	------------------------------------

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 7/15/00	CLIENT: URS Radon PROJECT #: Z1001-001	PROJECT CONTACT: Tim Gish	PROJECT LOCATION: ^{Excavation} UR Grace Vermiculite Mine #6 Glory Hole I WORK AREA: Libby, MT	SAMPLING REP: Patrick McGurran		
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____		PUMP CALIBRATION: Rotameter <input type="checkbox"/> ID _____ Other: DC-Lite Dry Cal DC-L739	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other .45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN.)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> fibers <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
				Start	Stop	Total	Start	Stop	Avg.				
B01a	Field Blank	—	—	—	—	—	—	—	—	—	—	9/100	Field Blank
B02a	Field Blank	—	—	—	—	—	—	—	—	—	—	9/100	Field Blank
A03a	work area	Mine excavation - Glory Hole - West	Excavation	0835	1442	367	1.5	1.5	1.5	550.50	0.005	9/100	< LOQ
A04a	work area	Mine excavation Glory Hole - North		0846	1446	360	1.5	1.5	1.5	540.00	0.005	10/100	< LOQ
P05a	P	Mine excavation Glory Hole - work by Great Garcia	↓	0827	1411	344	1.5	1.5	1.5	516.00	0.005	65.5/100	0.062
Blind Recount													

Key:

Sample Type:
P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity:
PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep

URS COPY

Project No. 805169
File Code No. 4.5.b.4.63
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
7342 South Moore Court
Littleton, CO 80127
Phone: (303) 932-8484 FAX: (303) 932-8585

URS COPY

Project No. 805169
File Code No. 4.5.6.4.64
Doc No.

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: VR S Radian		Project Contact: Tim Gish	Location: WR Grace Vermiculite Plant Libby, MT	KEH Rep: Patrick McGurran
Project: Z1001-001		Analysis By: Patrick McGurran		
Date: 9/15/00	Calibration: <input checked="" type="checkbox"/> Rotameter _____ ID <input type="checkbox"/> Other _____ ID	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm _____ other _____ sq mm	PCM Filter: <input checked="" type="checkbox"/> 0.8 um25mm Mft. _____ <input type="checkbox"/> 0.8 um37mm Lot# _____	Other Media: _____ Type Mft. _____ Type Mft.
Name: Grant Garcia	Name: _____	Name: _____	Name: _____	
SSN: 542-44-9480	SSN: _____	SSN: _____	SSN: _____	

TWA: 0.044 f/cc

TWA: n/a

TWA: n/a

TWA:n/a

Comments:

~~21.328~~

Comments:

Comments:

Comments

URS CONSOLIDATED INC.

Project No. 805169
File Code No. 4.5.b.4.65
Doc No.

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/15/00	KEH PROJECT #: 21001-001 MICROSCOPE ID #:	KEH REP: Patrick McGurren ANALYST: Patrick McGurren						
SAMPLE #	FIBER COUNT	F/N	F/N -B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01a	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02a	0	0/100	—	—	—	—	—	Field Blank
A03a	0	0/100	0/100/0.00785	0	550.50	0.005	< LOQ	—
A04a	1.0	1/100	1/100/0.00785	1.27	540.00	0.005	< LOQ	—
P05a	65.5	65.5/100	65.5/100/0.00785	83.44	516.00	0.005	0.062	—
Blind Recount								

SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> other (list)	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: 9/16/00	ANALYST: Patrick McGurren	SIGNATURE: <i>Patrick McGurren</i>
---------------	---------------------------	------------------------------------

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/16/00	CLIENT: A & S PROJECT #: 01001-043	PROJECT CONTACT: Chuck Shaw	PROJECT LOCATION: WR Grace Vermiculite Plant - Storage shed WORK AREA: Libby, MT	SAMPLING REP: Patrick McGovern ANALYSIS BY: Patrick McGovern
------------------	---------------------------------------	--------------------------------	--	--

SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input checked="" type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: <input checked="" type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel <input type="checkbox"/> Other 145 Teflon	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA				
SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)	FLOW RATE (L/MIN)	AIR VOLUME (L)	DETCT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> Floc <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
P01	Field Blank	—	—	Start — Stop — Total —	Start — Stop — Avg. —	—	—	10/100	Field Blank
P02	Field Blank	—	—	Start — Stop — Total —	Start — Stop — Avg. —	—	—	0/100	Field Blank
P03	Ex	Inside storage shed worn by - Margarito Rivera	Storage shed cleaning	1531 1606 35	1.30 1.30 1.30	45.5	0.060	35/100	< LOQ
P04	P	Inside storage shed worn by - Isabel Herrera Herrera	↓	1530 2101 331	1.30 1.10 1.20	397.20	0.007	100/72	0.171
P05	↓	Inside storage shed worn by - Margarito Rivera	↓	1606 2102 296	1.30 1.30 1.30	384.80	0.007	50/100	0.063
Blind Recount									

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep

URS

Project No. 805169
File Code No. 4.5.6.2.1261
Doc No. 101

KOCH ENVIRONMENTAL HEALTH, INC.

7342 South Moore Court

Littleton, CO 80127

Phone: (303) 932-8484 FAX: (303) 932-8585

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: AC & S	Project Contact: Chuck Shaw	Location: W.R. Grace Vermiculite Plant Libby, MT	KEH Rep: Patrick McGuire	
Project: D1001-043			Analysis By: Patrick McGuire	
Date: 9/16/00	Calibration: <input checked="" type="checkbox"/> Rotameter _____ ID <input type="checkbox"/> Other _____ ID	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm <input type="checkbox"/> other _____ sq mm	PCM Filter: <input checked="" type="checkbox"/> 0.8 um25mm Mft. _____ <input type="checkbox"/> 0.8 um37mm Lot# _____	Other Media: _____ _____ Type Mft. Type Mft.
Name: Margarito Rivera	Name: Isabel Herrera	Name: _____	Name: _____	
SSN: 438-20-3756	SSN: 456-71-9753	SSN: _____	SSN: _____	

TWA: 0.639

TWA: 0.118

TWA: n/a

TWA: ✓

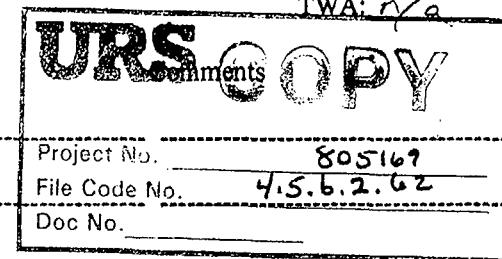
Comments:

$$S: 0.035 + \cancel{18.648} \quad \cancel{480}$$

Comment

~~56.601~~ 480

Comments:



KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/10/00	KEH PROJECT #: 01001-043				KEH REP: Patrick McGuire			
SAMPLE #	MICROSCOPE ID #:	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	1.0	1.0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
P03	3.5	3.5/100	3.0/ ^{3.0} 0.00785	3.82	45.50	0.060	<LOQ	—
P04	100.0	100.0/72	885/ ⁸⁸⁵ 0.00785	176.04	397.20	0.007	0.171	—
P05	50.0	50.0/100	49.5/ ^{49.5} 0.00785	63.06	384.80	0.007	0.063	—
Blind Re-count								

SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> other (list) _____	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method <input type="checkbox"/>

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: <input checked="" type="checkbox"/> phase test <input checked="" type="checkbox"/> micrometer <input checked="" type="checkbox"/> adjust field iris <input checked="" type="checkbox"/> adjust phase rings <input checked="" type="checkbox"/> focus on samples

ANALYST INFORMATION:

DATE: 9/17/00	ANALYST: Patrick McGuire	SIGNATURE: <i>Patricia McGuire</i>
---------------	--------------------------	------------------------------------

URS

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 8/16/00	CLIENT: URS Radian PROJECT #: Z1001-001	PROJECT CONTACT: Tim Gish	PROJECT LOCATION: WR Grace Vermiculite Plant - Storage Shed WORK AREA: Libby, MT	SAMPLING REP: Patrick McGuire ANALYSIS BY: Patrick McGuire	
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other: 45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm MA _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> other <input type="checkbox"/> ppm mg/m ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	1.5/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
PA103/A-24	Perimeter	Location #1 - North of Pole Barn - on perimeter	—	1502	2010	308	5.0	5.0	5.0	1540.00	1540.00	0.002	0/100 < LOQ
PA105/A-8		Location #2 - NW of Planer building - on perimeter	—	1510	2032	322	—	—	—	1690.50	2005.50	0.002	1/100 < LOQ
PA105/A-23		Location #3 - West of Planer building - on perimeter	—	1513	2036	323	—	—	—	1938.00	2298.00	0.001	0.5/100 < LOQ
PA106/A-24		Location #4 - SW of Planer building - on perimeter	—	1547	2016	269	5.5	5.5	5.5	1479.50	—	0.002	2.5/100 < LOQ
PA107/A-25		Location #5 - South of warehouse building - on perimeter	—	1553	2021	268	5.5	5.5	5.5	1474.00	—	0.002	1.5/100 < LOQ
PA108/A-1		Location #6 - NE of lumber storage building - on perimeter	—	1556	2028	272	6.0	6.5	6.25	1700.00	—	0.002	2.5/100 < LOQ
PA109/A-27		Location #7 - NE corner of property - on Stop sign Highway #37	—	1645	2052	247	5.0	5.5	5.25	1296.75	—	0.002	1.0/100 < LOQ
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Blind Recount	—	—	—	—	—	—	—	—	—	—	—	—	—

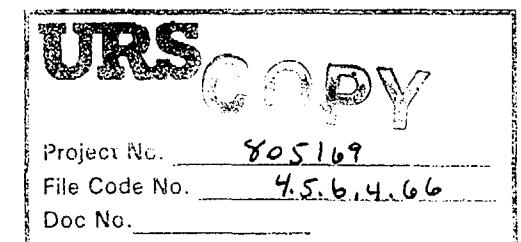
Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP = Paint Prep



KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/16/00	KEH PROJECT #: 21001-001 MICROSCOPE ID #: 1				KEH REP: Patrick McGarren ANALYST: Patrick McGarren			
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	1.0	1.0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
PM03	0	0/100	0	0	1540.00	0.002	< LOQ	—
PM04	1.0	1.0/100	0.0785/0.00785	1.27	1640.50	0.002	< LOQ	—
PM05	0.5	0.5/100	0.0785/0.00785	0.85	1938.00	0.001	< LOQ	—
PM06	2.5	2.5/100	2.0/100/0.00785	2.55	1479.50	0.002	< LOQ	—
PM07	1.5	1.5/100	1.0/100/0.00785	1.27	1474.00	0.002	< LOQ	—
PM08	2.5	2.5/100	2.0/100/0.00785	2.55	1700.00	0.002	< LOQ	—
PM09	1.0	1.0/100	0.0785/0.00785	0.64	1296.75	0.002	< LOQ	—
—	—	—	—	—	—	—	—	—
Blind Recount	—	—	—	—	—	—	—	—

SAMPLING INFORMATION:

Effective Collection Area of Filter:
 385 mm², 25 mm filter
 855 mm², 37 mm filter

Microscope Field-Area:
 0.00785 mm²
 other (list) _____

NIOSH 7400 Method A Rules

Other Method

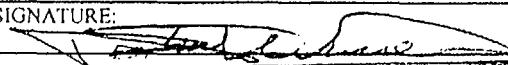
ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: phase test micrometer adjust field iris adjust phase rings focus on samples

ANALYST INFORMATION:

DATE: 9/17/00

ANALYST: Patrick McGarren

SIGNATURE: 

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/17/00	CLIENT: AC & S PROJECT #: 01001-043	PROJECT CONTACT: Chuck Shaw	PROJECT LOCATION: WR Grade Vermiculite Plant WORK AREA: Libby, MT	SAMPLING REP: Patrick McBurnie	
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input checked="" type="checkbox"/> (NIOSH 7082) Other <input checked="" type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: <input checked="" type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other .45 Teflon	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 13337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
P03	P	Inside Storage Shed worn by Victor Rojas	Storage shed power wash	0841	1209	208	1.3	1.3	1.3	270.40	0.010	90.0 /100	0.163
P04	EX	Inside Storage Shed worn by Fernando Juarez		0843	0913	30	1.3	1.3	1.3	39.00	0.069	8.5 /100	0.107
P05	P	Inside Storage Shed worn by Fernando Juarez		0913	1210	177	1.3	1.3	1.3	230.10	0.012	100.0 /94	0.227
P06		Inside Storage Shed worn by Victor Rojas		1323	1958	395	1.3	1.3	1.3	513.50	0.005	100.0 /84	0.114
P07	V	Inside Storage Shed worn by Fernando Juarez		1316	2002	406	1.3	1.3	1.3	527.80	0.005	63.0 /100	0.059
Blind Recount													

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep

URS COPY

Project No. 805169
File Code No. 4.5.5.2.64
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
7342 South Moore Court
Littleton, CO 80127
Phone: (303) 932-8484 FAX: (303) 932-8585

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: ACS S		Project Contact: Chuck Shaw	Location: W.R. Grace Vermacel Inc Plant Storage shed Libby, MT	KEH Rep: Patrick McGuire
Project: 01001-043		Analysis By: Patrick McGuire		
Date: 9/17/00	Calibration: <input checked="" type="checkbox"/> Rotameter _____ ID <input type="checkbox"/> Other _____ ID	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm <input type="checkbox"/> other _____ sq mm	PCM Filter: <input checked="" type="checkbox"/> 0.8 um25mm Mft. _____ <input type="checkbox"/> 0.8 um37mm Lot# _____	Other Media: _____ _____ Type Mft. Type Mft.
Name: VICTOR REJTS	Name: FERNANDO JUAREZ	Name: _____		Name: _____
SSN: 645-65-4305	SSN: 619-34-6943	SSN: _____		SSN: _____

TWA: 0.131 f/cc

TWA: 0.110 f/c.c.

TWA: *Va*

TWA: No.

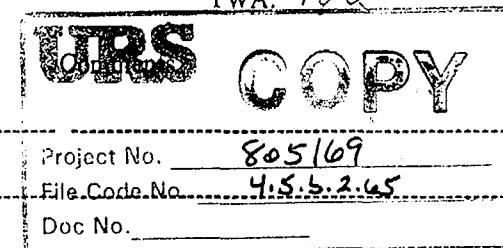
Comments:

$$33.904 + 45.030 / \cancel{430} \text{ (430)} 603$$

Comments:

$$3.21 + 40.179 + 23.954 \cancel{+ 613}$$

Comments:



KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/17/00	KEH PROJECT #: 01001-043 MICROSCOPE ID #:	KEH REP: Patrick McGuire						
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
P03	90.0	90.0/100	90.0/100/.00785	114.65	270.40	0.010	0.163	—
P04	8.5	8.5/100	8.5/100/.00785	10.83	39.00	0.069	0.107	—
P05	100.0	100.0/94	100.0/94/.00785	135.520	230.10	0.012	0.227	—
P06	100.0	100.0/84	100.0/84/.00785	151.65	513.50	0.005	0.114	—
P07	63.0	63.0/100	63.0/100/.00785	80.255	527.80	0.005	0.059	—
Blind Recount								

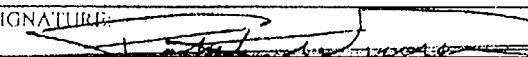
SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> other (list) _____	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: 9/18/00	ANALYST: Patrick McGuire	SIGNATURE: 
---------------	--------------------------	--

URS COPY

Project No. 805169
File Code No. 4.5.b.2-66
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/17/00	CLIENT: VES Radian PROJECT #: 21001-001	PROJECT CONTACT: Tim Gish	PROJECT LOCATION: W.R. Grace Vermiculite Plant WORK AREA: Libby, MT	SAMPLING REP: Patrick McCormick	
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: <input type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other - 45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
PM03/A-09	Perimeter	Location #1 - North of Pole Barn - on perimeter	—	0809	1508	419	7.00	6.50	6.75	2828.25	0.001	3.0/100	< LOQ
PM04/A-07		Location #2 - NW of Planer building - on perimeter	—	0811	1514	423	5.00	5.00	5.00	2115.00	0.001	2.0/100	< LOQ
PM05/A-23		Location #3 - West of Planer building - on perimeter	—	0814	1521	427	6.00	5.50	6.25	2668.75	0.001	2.5/100	< LOQ
PM06/A-24		Location #4 - SW of Planer building - on perimeter	—	0818	1527	429	6.00	5.50	5.75	2466.75	0.001	4.0/100	< LOQ
PM07/A-25		Location #5 - South of warehouse building - on perimeter	—	0824	1534	430	6.00	5.50	5.75	2472.50	0.001	1.0/100	< LOQ
PM08/A-01		Location #6 - NE of Lumber Storage building - on perimeter	—	0828	1539	431	6.00	6.00	6.00	2586.00	0.001	2.0/100	< LOQ
PM09/A-27	↓	Location #7 - NE corner of property - on stop sign Highway #37	—	0830	1542	432	5.50	5.50	5.50	2376.00	0.001	3.0/100	< LOQ
PM10/A-09	↓	Location #1 - North of Pole Barn - on perimeter	—	1509	1919	251	5.00	5.00	5.00	1255.00	0.002	1.0/100	< LOQ
Blind Recount	—	—	—	—	—	—	—	—	—	—	—	—	—

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM = Removal
GB = Glovebag
FC = Final Cleaning

BO = Bagout
TD = Tear Down
PP = Paint Prep

URS COPY

Project No. 805169
File Code No. 4.5.b.4.68
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/17/xx	CLIENT: URS Radian PROJECT #: Z1001-001	PROJECT CONTACT: Tim Grish	PROJECT LOCATION: URS Grace Vermiculite Plant - Storage WORK AREA: Library, L17	SAMPLING REP: Patrick McGowan ANALYSIS BY: Patrick McGowan
------------------	--	-------------------------------	---	--

SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input checked="" type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: 0.8 µm 25 mm MCE charcoal tubes Silica Gel Other: 45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45µm 25mm <input type="checkbox"/> PC <0.45µm 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA
---	--	---	---	---	---

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN.)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION F/cc other ppm mg/M ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	2/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	2/100	Field Blank
PM11/4-87	Perimeter	Location #2 - SW of planer building - on perimeter	—	1514	1922	248	5.00	5.00	5.00	1240.00	0.002	2.9/100	< LOQ
PM12/4-23		Location #3 - West of planer building - on perimeter	—	1521	1925	244	5.50	5.50	5.50	1342.00	0.002	1.5/100	< LOQ
PM13/4-24		Location #4 - SW of planer Building - on perimeter	—	1527	1928	241	5.50	5.50	5.50	1325.50	0.002	2.5/100	< LOQ
PM14/4-25		Location #5 - South of warehouse building - on perimeter	—	1534	1933	239	5.50	5.50	5.50	1314.50	0.002	0/100	< LOQ
PM15/4-1		Location #6 - NE of f. Lumber storage building - on perimeter	—	1539	1937	238	5.00	5.50	5.25	1190.00	0.002	1.0/100	< LOQ
PM16/4-27		Location #7 - NE corner of property - on sign Highway #37	—	1546	1940	234	5.00	5.00	5.00	1170.00	0.002	2.0/100	< LOQ
AT7/30/5	OWA	Inside Storage Shed - Clean room	Storage shed cleaning	0912	1948	636	2.00	1.90	1.95	1240.20	0.002	10.0/100	0.004
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Blind Recount	—	—	—	—	—	—	—	—	—	—	—	—	—

Key:

Sample Type:
P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP = Paint Prep

URS COPY

Project No. 805169
File Code No. 4.5.b.4.69
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: <i>9/17/00</i>	KEH PROJECT #: 21001-001 MICROSCOPE ID #: 1	KEH REP: <i>Patrick McGurran</i> ANALYST: <i>Patrick McGurran</i>						
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
PM03	3.0	3.0/100	3.0/100/.00785	3.32	2828.25	0.001	LOQ	—
PM04	2.0	2.0/100	2.0/100/.00785	2.55	2115.00	0.001	< LOQ	—
PM05	2.5	2.5/100	2.5/100/.00785	3.18	2668.75	0.001	< LOQ	—
PM06	4.0	4.0/100	4.0/100/.00785	5.10	2466.75	0.001	LOQ	—
PM07	1.0	1.0/100	1.0/100/.00785	1.27	2472.50	0.001	< LOQ	—
PM08	2.0	2.0/100	2.0/100/.00785	2.55	2586.00	0.001	< LOQ	—
PM09	3.0	3.0/100	3.0/100/.00785	3.82	2376.00	0.001	LOQ	—
PM10	1.0	1.0/100	1.0/100/.00785	1.27	1255.00	0.002	< LOQ	—
Blind Recount	—	—	—	—	—	—	—	—

SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² other (list) _____	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method _____

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: <input checked="" type="checkbox"/> phase test <input checked="" type="checkbox"/> micrometer <input checked="" type="checkbox"/> adjust field iris <input checked="" type="checkbox"/> adjust phase rings <input checked="" type="checkbox"/> focus on samples

ANALYST INFORMATION:

DATE: <i>9/18/00</i>	ANALYST: <i>Patrick McGurran</i>	SIGNATURE: <i>Patrick McGurran</i>
----------------------	----------------------------------	------------------------------------

URS COPY

Project No. <i>805169</i>
File Code No. <i>4.S.b.4.70</i>
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/17/00	KEH PROJECT #: 21001-001	KEH REP: Patrick McGuire						
	MICROSCOPE ID #: 1	ANALYST: Patrick McGuire						
SAMPLE #	FIBER COUNT	F/N	F/N -B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	9/100	—	—	—	—	—	Field Blank
Field Blank B02	0	9/100	—	—	—	—	—	Field Blank
PM11	2.0	2.0/100	2.0/100/.00785	2.55	1240.00	0.002	< LOQ	—
PM12	1.5	1.5/100	1.5/100/.00785	1.91	1342.00	0.002	< LOQ	—
PM13	2.5	2.5/100	2.5/100/.00785	3.18	1325.50	0.002	< LOQ	—
PM14	0	0/100	0/100	0	1314.50	0.002	< LOQ	—
PM15	1.0	1.0/100	1.0/100/.00785	1.27	1190.00	0.002	< LOQ	—
PM16	2.0	2.0/100	2.0/100/.00785	2.55	1170.00	0.002	< LOQ	—
A17	10.0	10.0/100	10.0/100/.00785	12.74	1240.20	0.002	0.004	—
—	—	—	—	—	—	—	—	—
Blind Recount	—	—	—	—	—	—	—	—

SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> other (list)	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: <input checked="" type="checkbox"/> phase test <input checked="" type="checkbox"/> micrometer <input checked="" type="checkbox"/> adjust field iris <input checked="" type="checkbox"/> adjust phase rings <input checked="" type="checkbox"/> focus on samples

ANALYST INFORMATION:

DATE: 9/18/00	ANALYST: Patrick McGuire	SIGNATURE: 
---------------	--------------------------	--

URS COPY

Project No. 805169
File Code No. 4.5.6.4.71
Doc No.

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/18/00	CLIENT: AC & S PROJECT #: O1001-043	PROJECT CONTACT: Chuck Shaw	PROJECT LOCATION: 102 East Vermicite Plant - Storage Shed WORK AREA: Library M/T	SAMPLING REP: Patrick McGuire ANALYSIS BY: Patrick McGuire									
SAMPLE TYPE: Asbestos ✓ (NIOSH 7400) Lead (NIOSH 7082) Other Method:	PUMP CALIBRATION: Rotameter ✓ ID _____ Other: _____	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other, 45 TEM	TEM FILTER: ✓ MCE <0.45um 25mm PC <0.45um 37mm Mfr. _____ Lot No. 1537	FILTER FCA: ✓ 385 mm ² mm ² NA	MICROSCOPE FIELD AREA: ✓ 0.00785 mm ² mm ² NA								
SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION ✓ FCC other ppm mg/M ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	1.0/100	Field Blank	
B02	Field Blank	—	—	—	—	—	—	—	—	—	1.0/100	Field Blank	
P03	EX	Inside Storage shed building - worn by Cayetano Montoya	Storage shed power wash	0803 0938	35	1.30	1.30	1.30	45.50	0.040	8.9/100	0.075	
P04	P	inside Storage shed building - worn by Margarita Rivera	↓	0805 1703	535	1.30	1.00	1.15	615.25	0.004	28.5/100	0.022	
P05	↓	inside Storage shed building - worn by Cayetano Montoya	↓	0838 1700	502	1.30	1.10	1.20	602.40	0.004	21.5/100	0.017	
Blind Recount													

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep

URS	
805169	
Project No.	File Code No.
4.5.b.2.67	Doc No.

KOCH ENVIRONMENTAL HEALTH, INC.
7342 South Moore Court
Littleton, CO 80127
Phone: (303) 932-8484 FAX: (303) 932-8585

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: AC 2 S		Project Contact: Chuck Shaw	Location: WR Grace Vermiculite Plant - Storage Shed Libby, MT	KEH Rep: Patrick McGurran
Project: 01001-043		Analysis By: Patrick McGurran		
Date: 9/16/00	Calibration: <input checked="" type="checkbox"/> Rotameter _____ <input type="checkbox"/> Other _____	ID _____ ID _____	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm <input type="checkbox"/> other _____ sq mm	PCM Filter: <input checked="" type="checkbox"/> 0.8 um 25mm Mft. _____ <input type="checkbox"/> 0.8 um 37mm Lot# _____
Name: Cayetano Montoya		Name: Margarito Rivera		Name: _____
SSN: 645-22-6340		SSN: 438-70-3750		SSN: _____

TWA: 0.021 f/cc

TWA: 0.022 f/c.

TWA: n/a

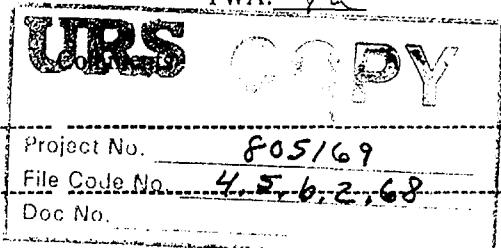
TWA: Wa

Comments:

Comments:

Comments:

11.159 / 537



KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: <u>9/18/00</u>	KEH PROJECT #: 0601-043 MICROSCOPE ID #: 1				KEH REP: <u>Patrick McGurran</u>	ANALYST: <u>Patrick McGurran</u>		
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	1.0	1.0/100	—	—	—	—	—	Field Blank
Field Blank B02	1.0	1.0/100	—	—	—	—	—	Field Blank
B03	8.0	8.0/100	7.9/100/.00785	8.92	45.50	0.060	0.075	—
B04	28.5	28.5/100	27.9/100/.00785	35.03	615.25	0.004	0.022	—
B05	21.5	21.5/100	20.5/100/.00785	26.11	602.40	0.004	0.017	—
Blind Recount								

SAMPLING INFORMATION:

Effective Collection Area of Filter:
 385 mm², 25 mm filter
 855 mm², 37 mm filter

Microscope Field Area:
 0.00785 mm²
 other (list) _____

NIOSH 7400 Method A Rules

Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: phase test micrometer adjust field iris adjust phase rings focus on samples

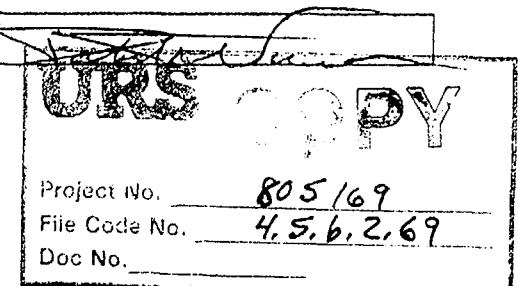
ANALYST INFORMATION:

DATE: 9/19/00

ANALYST:

Patrick McGurran

SIGNATURE:



KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 7/18/00	CLIENT: URS Radica PROJECT #: 21001-001	PROJECT CONTACT: Tim Grish	PROJECT LOCATION: WR Grace Vermiculite Plant WORK AREA: Libby, MT	SAMPLING REP: Patrick McGovern ANALYSIS BY: Patrick McGovern	
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other: 175 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE(L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION LF/cc other ppm mg/M ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	1.0/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	1.0/100	Field Blank
PM03/A-09	Perimeter	Location #1 - North of Planer Building on perimeter	—	0730	1625	535	6.00	6.00	6.00	3210.00	0.001	9.0/100	0.001
PM04/A-87		Location #2 - NW of Planer Building on perimeter	—	0740	1632	532	5.00	5.00	5.00	2660.00	0.001	2.0/100	< LOQ
PM05/A-23		Location #3 - West of Planer building on perimeter	—	1744	1640	536	5.00	5.00	5.00	2680.00	0.001	1.0/100	< LOQ
PM06/A-24		Location #4 - SW of Planer building on perimeter	—	0810	1649	519	6.00	6.00	6.00	3114.00	0.001	5.0/100	LOQ
PM07/A-25		Location #5 - South of warehouse building on perimeter	—	0816	1656	520	6.00	5.50	5.75	2990.00	0.001	4.0/100	< LOQ
PM08/A-1		Location #6 - NE of Lumber storage building on perimeter	—	0818	1703	525	5.00	5.50	5.25	2756.25	0.001	4.0/100	LOQ
PM09/A-27		Location #7 - NE corner of property - on stop sign Highway #37	—	0821	1707	526	5.50	5.50	5.50	2893.00	0.001	2.5/100	< LOQ
410/305	OWA	Inside storage shed clean room decor	Storage Sew pewel wash	0820	1717	557	1.90	1.90	1.90	1058.30	0.003	8.0/100	0.003
Blind Recount	—	—	—	—	—	—	—	—	—	—	—	—	—

Key:	Sample Type: P = Personal		BAK = Background		Activity: PREP = Work Area Preparation		BO = Bagout	
	Ex = Excursion		A = Ambient Air		REM - Removal		TD = Tear Down	
	IWA = Inside Work Area		HEX = HEPA Exhaust		GB - Glovebag		PP - Paint Prep	
	OWA = Outside Work Area		CL = Clearance Sample		FC - Final Cleaning			

URS	805169
Project No.	805169
File Code No.	4.5.b.4.72
Doc No.	_____

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE:	CLIENT: URS Radian	PROJECT CONTACT:	PROJECT LOCATION:	SAMPLING REP:
9/18/00	PROJECT #: Z1001-001	Tim Gish	WR Grace Vermiculite Plant - Storage WORK AREA: Libby, MT Shed	Patrick McGuire

SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: <input checked="" type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other: 45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² NA
--	--	---	---	--	--

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN.)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	1.0/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	1.0/100	Field Blank
411	OWA	Southeast of Pole Barn & North of Storage Shed	Storage shed power wash	0841	11019	458	5.00	458	5.00	2290.00	0.001		
Blind Recount													

Key:												
Sample Type:	P = Personal	BAK = Background	Activity:	PREP = Work Area Preparation	BO = Bagout							
Ex = Excursion	A = Ambient Air	REM - Removal	TD = Tear Down									
IWA = Inside Work Area	HEX = HEPA Exhaust	GB - Glovebag	PP - Paint Prep									
OWA = Outside Work Area	CL = Clearance Sample	FC - Final Cleaning										

URS **CORPV**

Project No. 805169
File Code No. 4.5.b.4.73
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 7/18/00		KEH PROJECT #: 21001-001 MICROSCOPE ID #: 1			KEH REP: Patrick McGuire ANALYST: Patrick McGuire			
SAMPLE #	FIBER COUNT	F/N	F/N -B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	1.0	1.0/100	—	—	—	—	—	Field Blank
Field Blank B02	1.0	1.0/100	—	—	—	—	—	Field Blank
PM03	7.0	9.0/100	8.0/100/.00785	10.19	3210.00	0.001	<LOQ 0.001	—
PM04	2.0	2.0/100	1.0/100/.00785	1.27	2660.00	0.001	<LOQ	—
PM05	1.0	1.0/100	0/100/.00785	0	2680.00	0.001	<LOQ	—
PM06	5.0	5.0/100	4.0/100/.00785	5.10	3114.00	0.001	LOQ	—
PM07	4.0	4.0/100	3.0/100/.00785	3.82	2990.00	0.001	<LOQ	—
PM08	4.0	4.0/100	3.0/100/.00785	3.82	2756.25	0.001	LOQ	—
PM09	2.5	2.5/100	1.5/100/.00785	1.91	2893.00	0.001	<LOQ	—
A10	8.0	8.0/100	7.0/100/.00785	8.92	1058.30	0.003	LOQ 0.003	—
Blind Recount	—	—	—	—	—	—	—	—

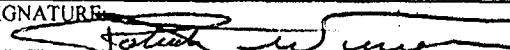
SAMPLING INFORMATION:

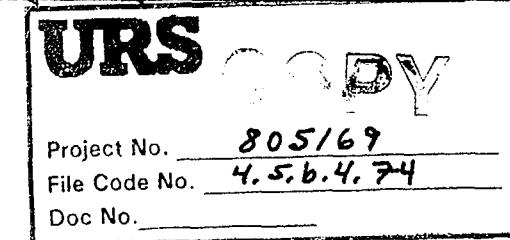
Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² other (list) _____	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: 7/19/00	ANALYST: Patrick McGuire	SIGNATURE: 
---------------	--------------------------	--



KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: <u>9/18/00</u>	KEH PROJECT #: <u>21001-001</u> MICROSCOPE ID #:							
SAMPLE #	FIBER COUNT	F/N	F/N -B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	1.0	1.0/100	—	—	—	—	—	Field Blank
Field Blank B02	1.0	1.0/102	—	—	—	—	—	Field Blank
A11	4.5	4.5/100	35/100/00185	4.46	2290.00	0.001	LOQ	—
Blind Recount								

SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² other (list)	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: <u>9/19/00</u>	ANALYST: <u>Patrick McGuire</u>	SIGNATURE: <u>Patrick McGuire</u>
 Project No. <u>805169</u> File Code No. <u>4.5.6.4.75</u> Doc No. <u>_____</u>		

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE:	CLIENT: Ac & S	PROJECT CONTACT: Chuck Shaw	PROJECT LOCATION: WR Grace Vermiculite Plant - Storage shed	SAMPLING REP: Patrick McGuire							
9/19/00	PROJECT #: 01001-001		WORK AREA: Libby, MT	ANALYSIS BY: Patrick McGuire							
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/>	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: <input type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other, 45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. _____	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA						
SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)	FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
				Start	Stop	Total	Start	Stop	Avg.		
B01	Field Blank	—	—	—	—	—	—	—	—	0/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	0/100	Field Blank
P03	P	On truck - work by Fernando Suarez Moving number 2007	1516 1916	240	2.0	2.0	2.0	2.0	480.00	0.006	31.0/ 100
P04	↓	Inside storage shed - laying Poly. Guillermo Martinez	1515 1915	240	2.0	2.0	2.0	2.0	480.00	0.006	19.0/ 100
P05	EX	Outside storage shed - cleaning up outside Guillermo Martinez property	1915 1945	30	2.0	2.0	2.0	2.0	60.00	0.045	11.0/ 100
Blind Recount											

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep

URS

DV

Project No. 805169
File Code No. 4.5.b.2.70
Doc No.

KOCH ENVIRONMENTAL HEALTH, INC.
7342 South Moore Court
Littleton, CO 80127
Phone: (303) 932-8484 FAX: (303) 932-8585

URS

DV

Project No. 805169
File Code No. 4151271
Run No.

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: Ac & S	Project Contact: Chuck Shaw	Location: WR Grace Vermiculite Plant - Strategic Libby, MT	KEH Rep: Patrick McGuire	
Project: 01001-043			Analysis By: Patrick McGuire	
Date: 9/19/00 <i>9/20/00 PM</i>	Calibration: <input checked="" type="checkbox"/> Rotameter _____ ID <input type="checkbox"/> Other _____ ID	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm <input type="checkbox"/> other _____ sq mm	PCM Filter: <input checked="" type="checkbox"/> 0.8 um 25mm Mft. _____ <input type="checkbox"/> 0.8 um 37mm Lot# _____	Other Media: _____ Type _____ Mft. _____ _____ Type _____ Mft. _____
Name: Fernando Juarez	Name: Guillermo Martinez	Name: _____	Name: _____	
SSN: 619-34-6943	SSN: 627-39-2411	SSN: _____	SSN: _____	

TWA: 0.014 f/cc

TWA: 0.015 f/cc

TWA: 17/g

TWA: 11/12

Comments:

~~7.68 / 480~~

Comments:

$$\begin{array}{r} 4.56 \\ + 2.7 \\ \hline 7.26 \end{array}$$

Comments:

Comments

URS

DR

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

Project No. 805169
File Code No. 4.S.B.C.72
Due No.

DATE: 9/19/00		KEH PROJECT #: 21001-021				KEH REP: Patrick McGuire			
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS	
Field Blank R01	0	0/100	—	—	—	—	—	Field Blank	
Field Blank R02	0	0/100	—	—	—	—	—	Field Blank	
P03	31.0	31.0/100	31.0/100/0.00785	39.49	480.00	0.006	0.032	—	
P04	19.0	19.0/100	19.0/100/0.00785	24.704	480.00	0.006	0.019	—	
P05	11.0	11.0/100	11.0/100/0.00785	14.01	60.00	0.045	0.090	—	
Blind Recount									

SAMPLING INFORMATION:

Effective Collection Area of Filter:
 385 mm², 25 mm filter
 855 mm², 37 mm filter

Microscope Field Area:
 0.00785 mm²
 other (list)

NIOSH 7400 Method A Rules

Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: phase test micrometer adjust field iris adjust phase rings focus on samples

ANALYST INFORMATION:

DATE: 9/20/00	ANALYST: Patrick McGuire	SIGNATURE: <i>Patrick McGuire</i>
---------------	--------------------------	-----------------------------------

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/19/00	CLIENT: URS Radian PROJECT #: Z1001-001	PROJECT CONTACT: Tim Gish	PROJECT LOCATION: WR Grace Vermiculite Plant - Storage Shed WORK AREA: Library, 1st	SAMPLING REP: Patrick McGuire ANALYSIS BY: Patrick McGuire					
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: <input checked="" type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other p45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. _____	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA				
SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)	FLOW RATE (L/MIN.)	AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³
B01	Field Blank	—	—	Start Stop Total	Start Stop Avg.	—	—	—	0/100 Field Blank
B02	Field Blank	—	—	—	—	—	—	0/100	Field Blank
PM03/A-09	Perimeter	Location #1 - North of Pole Barn - on perimeter	Laying down poly in storage shed	1330 1717 227	700 650 6.75	1532.25	0.002	4.0/100	< LOQ
PM04/A-87		Location #2 - NW of Planer building - on perimeter		1335 1920 345	5.00 5.50 5.25	1811.25	0.001	3.5/100	LOQ
PM05/A-23		Location #3 - West of Planer building - on perimeter		1339 1925 346	6.00 6.00 6.00	2076.00	0.001	3.0/100	LOQ
PM06/A-24	A1	Location #4 - SW of Planer building - on perimeter		1344 1933 349	6.00 6.00 6.00	2094.00	0.001	3.0/100	LOQ
PM07/A-25		Location #5 - South of warehouse building - on perimeter		1356 1938 350	6.00 no power	0	—	—	VOID due to Power Interruption
PM08/A-24		Location #6 - NE of lumber storage building - on perimeter		1404 1954 350	6.00 6.00 6.00	2100.00	0.001	3.5/100	LOQ
PM09/A-27	↓	Location #7 - NE corner of property - on stop sign Highway #37		1411 1959 348	6.00 6.00 6.00	2088.00	0.001	4.0/100	LOQ
A10/	OWA	Southeast of Pole Barn & North of storage shed		1350 1929 339	5.00 5.00 5.00	1695.00	0.002	7.0/100	0.002
Blind Recount	—	—	—	—	—	—	—	—	—

* Power was pulled approximately one hour prior to collecting samples. No power to pump

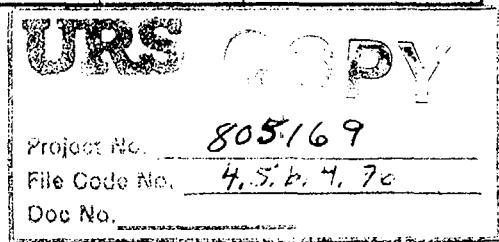
Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP - Paint Prep



● Sample was pulled early due to water truck operating in the area.

URS

CDV

Project No. 805169
 File Code No. 4.5.b 4.77
 Doc No.

KOCH ENVIRONMENTAL HEALTH, INC. ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/19/00	KEH PROJECT #: 21001-001			KEH REP: Patrick M. McGuire				
SAMPLE #	MICROSCOPE ID #:	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	Ø	Ø/100	—	—	—	—	—	Field Blank
Field Blank B02	Ø	Ø/100	—	—	—	—	—	Field Blank
PM03	4.0	4.0/100	4.0/100/00785	5.10	1532.25	0.002	< LOQ	—
PM04	3.5	3.5/100	3.5/100/00785	4.41	1811.25	0.001	LOQ	—
PM05	3.0	3.0/100	3.0/100/00785	3.82	2076.00	0.001	LOQ	—
PM06	3.0	3.0/100	3.0/100/00785	3.82	2094.00	0.001	LOQ	—
PM07	Ø/100	—	—	—	—	—	—	VOIDS
PM08	3.5	3.5/100	3.5/100/00785	4.46	2100.00	0.001	LOQ	—
PM09	4.0	4.0/100	4.0/100/00785	5.10	2083.00	0.001	LOQ	—
A10	7.0	7.0/100	7.0/100/00785	8.92	1695.00	0.002	(PMT) 0.002	—
Blind Recount	—	—	—	—	—	—	—	—

SAMPLING INFORMATION:

Effective Collection Area of Filter:
 385 mm², 25 mm filter
 855 mm², 37 mm filter

Microscope Field Area:
 0.00785 mm²
 other (list)

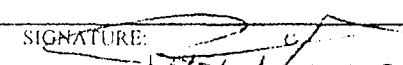
NIOSH 7400 Method A Rules

Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: phase test micrometer adjust field iris adjust phase rings focus on samples

ANALYST INFORMATION:

DATE: 9/20/00	ANALYST: Patrick McGuire	SIGNATURE: 
---------------	--------------------------	--

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE:	CLIENT: Acg S		PROJECT CONTACT:	PROJECT LOCATION:		SAMPLING REP:			
8/20/00	PROJECT #: 01001-043		Chuck Shaw	WR Grace Vermiculite Plant, Warehouse WORK AREA: Libby, MT		Patrick McGuire			
SAMPLE TYPE: <input checked="" type="checkbox"/> Asbestos <input type="checkbox"/> (NIOSH 7400) <input type="checkbox"/> Lead <input type="checkbox"/> (NIOSH 7082) <input type="checkbox"/> Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: <input checked="" type="checkbox"/> Rotameter <input type="checkbox"/> ID _____ Other: _____	FILTER TYPE: <input type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other .45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA				
SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)	FLOW RATE (L/MIN)	AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input type="checkbox"/> F/cc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/M ³
B01	Field Blank	—	—	Start — Stop — Total —	Start — Stop — Avg. —	—	—	—	0/00 Field Blank
B02	Field Blank	—	—	—	—	—	—	0/00 Field Blank	
B03	Ex	Inside Warehouse - worn by - Margarito Rivera	Cleaning material	0106 0936 30	2.00 2.00 2.00	60.00	0.045	94.0% 0/00	0.768
B04	P	Inside Warehouse - worn by Leyetano Martinez		0907 1700 473	2.00 2.00 2.00	946.00	0.003	43.7% 0/00	0.024
B05	P	Inside Warehouse - worn by - Margarito Rivera		0936 1700 444	2.00 2.00 2.00	888.00	0.003	33.0% 0/00	0.018
Blind Recount									

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM = Removal
GB = Glovebag
FC = Final Cleaning

BO = Bagout
TD = Tear Down
PP = Paint Prep

UKC SPY
Project No. 82-161
File Code No. 45-12-73
Doc No. _____

KOCH ENVIRONMENTAL HEALTH, INC.
7342 South Moore Court
Littleton, CO 80127
Phone: (303) 932-8484 FAX: (303) 932-8585

UNIVERSITY COPY

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: AC&S	Project Contact: Chuck Shaw	Location: 6012 Grace Terminalite Plant	KEH Rep: Patrick McGurren	
Project: 01001-043			Analysis By: Patrick McGurren	
Date: 9/20/00	Calibration: <input checked="" type="checkbox"/> Rotameter <input type="checkbox"/> ID <input type="checkbox"/> Other <input type="checkbox"/> ID	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm <input type="checkbox"/> other <input type="checkbox"/> sq mm	PCM Filter: <input checked="" type="checkbox"/> 0.8 um25mm Mft. <input type="checkbox"/> 0.8 um37mm Lot#	Other Media: _____ _____ Type Mft. Type Mft.
Name: Margarito Rivera	Name: Cayetano Montoya	Name: _____	Name: _____	
SSN: 438-20-3756	SSN: 645-22-1340	SSN: _____	SSN: _____	

TWA: _____

TWA:

TWA: ✓

TWA: n/a

Comments:

Comments:

Comments:

Comments

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

COPY

Project No.	8-516-1
File Control No.	4.5.1b.6.25
Doc No.	

DATE:	KEH PROJECT #:	KEH REP:						
9/20/00	Q1001-C43	<i>Patrick McGuire</i>			ANALYST: <i>Patrick McGuire</i>			
SAMPLE #	FIBER COUNT	F/N	F/N -B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
P03	94.0	94.0/100	94.0/100/0.00785	119.75	60.00	0.045	0.768	—
P04	45.5	45.5/100	45.5/100/0.00785	57.96	946.00	0.003	0.024	—
P05	33.0	33.0/100	33.0/100/0.00785	42.04	888.00	0.003	0.018	—
Blind Recount								

SAMPLING INFORMATION:

Effective Collection Area of Filter:
 385 mm², 25 mm filter
 855 mm², 37 mm filter

Microscope Field Area:
 0.00785 mm²
other (list)

NIOSH 7400 Method A Rules

Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: phase test micrometer adjust field iris adjust phase rings focus on samples

ANALYST INFORMATION:

DATE: 9/21/00

ANALYST: *Patrick McGuire*

SIGNATURE: *Patrick McGuire*

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE:	CLIENT: URS Radian		PROJECT CONTACT:	PROJECT LOCATION:		SAMPLING REP:				
9/20/02	PROJECT #: Z1001-001		Tim Gish	W.R. Grace Vermiculite Plant - Storage Sheds Libby, MT		Patrick McGuire				
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/>	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other .45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA					
SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)	FLOW RATE (L/MIN)	AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> F/cc other <input type="checkbox"/> ppm <input type="checkbox"/> mg/M ³	
B01	Field Blank	—	—	Start Stop Total	Start Stop Avg.	—	—	—	Field Blank	
B02	Field Blank	—	—	—	—	—	—	—	Field Blank	
PM03/A-27	Perimeter	Location #1 - North of Pole Barn - on perimeter	0830 1344	314	5.50	5.50	5.50	1727.00	0.002	5.0/100 < LOQ
PM04/A-23		Location #2 - NW of Planer building - on perimeter	0839 1352	313	5.00	5.00	5.00	1565.00	0.002	3.0/100 < LOQ
PM05/A-23		Location #3 - West of Planer building - on perimeter	0844 1354	312	5.00	5.00	5.00	1560.00	0.002	3.5/100 < LOQ
PM01		Location #4 - SW of Planer building - on perimeter	0833 1402	309	5.00	5.00	5.00	1545.00	0.002	2.5/100 < LOQ
PM07		Location #5 - South of Warehouse building - on perimeter	0930 1408	269	5.00	5.00	5.00	1345.00	0.002	1.0/100 < LOQ
PM08/A-1		Location #6 - NE of Lumber storage building - on perimeter	0910 1414	304	5.00	5.00	5.00	1520.00	0.002	1.0/100 < LOQ
PM09/A-10		Location #7 - NE corner of property - on stop sign Highway #37	0915 1426	311	5.00	5.50	5.25	1632.75	0.002	6.0/100 0.002
A10/A-89	OWA	SE of Pole Barn & North of storage shed	0950 1400	310	5.00	5.00	5.00	1550.00	0.002	5.0/100 LOQ
Blind Recount	—	—	—	—	—	—	—	—	—	

* Samples pulled early due to rain.

Key:

Sample Type: P = Personal
Ex = Excursion
IWA = Inside Work Area
OWA = Outside Work Area

BAK = Background
A = Ambient Air
HEX = HEPA Exhaust
CL = Clearance Sample

Activity: PREP = Work Area Preparation
REM - Removal
GB - Glovebag
FC - Final Cleaning

BO = Bagout
TD = Tear Down
PP = Paint Prep

URS COPY

Project No. SC 5169
File Code No. 4.5.1.4.7
Doc No.

• Take a while to get power to sample location.

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/20/00		KEH PROJECT #: 01001-043 MICROSCOPE ID #: 1				KEH REP: Patrick M. Guren ANALYST: Patrick M. Guren			
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS	
Field Blank B01	0	~	—	—	—	—	—	Field Blank	
Field Blank B02	0	—	—	—	—	—	—	Field Blank	
PM03	5.0	5.0/100	5.0/100/00785	6.37	1727.00	0.002	< LOQ	—	
PM04	3.0	3.0/100	3.0/100/00785	3.82	1565.00	0.002	< LOQ	—	
PM05	3.5	3.5/100	3.5/100/00785	4.46	1560.00	0.002	< LOQ	—	
PM06	2.5	2.5/100	2.5/100/00785	3.18	1545.00	0.002	< LOQ	—	
PM07	1.0	1.0/100	1.0/100/00785	1.27	1345.00	0.002	< LOQ	—	
PM08	1.0	1.0/100	1.0/100/00785	1.27	1520.00	0.002	< LOQ	—	
PM09	6.0	6.0/100	6.0/100/00785	7.64	1632.75	0.002	0.002	—	
A10	5.0	5.0/100	5.0/100/00785	6.37	1550.00	0.002	LOQ	—	
Blind Recount	—	—	—	—	—	—	—	—	

SAMPLING INFORMATION:

Effective Collection Area of Filter:

385 mm², 25 mm filter
 855 mm², 37 mm filter

Microscope Field Area:

0.00785 mm²
 other (list) _____

NIOSH 7400 Method A Rules

Other Method

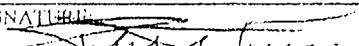
ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: phase test micrometer adjust field iris adjust phase rings focus on samples

ANALYST INFORMATION:

DATE: 9/21/00

ANALYST: Patrick M. Guren

SIGNATURE: 

URS

OPY

Project No. 865169

File Code No. 4,5,b,4,80

Doc No.

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/2/00	CLIENT: Acis PROJECT #: 0100-043	PROJECT CONTACT: Chuck Shaw	PROJECT LOCATION: WE Grace Vermiculite Plant Warehouse WORK AREA: Library, MT	SAMPLING REP: Patrick McGuire ANALYSIS BY: Patrick McGuire
-----------------	-------------------------------------	--------------------------------	---	--

SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other . 45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mft. Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA
--	--	--	---	---	--

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> F/cc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/M ³
				Start	Stop	Total	Start	Stop	Avg.				
B01	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
B02	Field Blank	—	—	—	—	—	—	—	—	—	—	0/100	Field Blank
P03	P	Inside warehouse building worn by Jose G. Aguilar	Cleaning miscellaneous materials	1050	1410	200	2.00	2.00	2.00	400.00	0.007	98.00 /100	0.120
P04	↓	Inside warehouse building worn by Guillermo Martinez		1052	1656	364	2.00	2.00	2.00	728.00	0.004	—	particulate overload
P05	EX	Inside warehouse building worn by Jose G. Aguilar		1410	1440	30	2.00	2.00	2.00	60.00	0.045	44.50 /100	0.364
P06	P	Inside warehouse building worn by Jose G. Aguilar	↓	1440	1655	135	2.00	2.00	2.00	270 pm 135.00	0.020	51.00 /100	0.093 0.185 pm
Blind Recount													

Key:			
Sample Type:	P = Personal Ex = Excursion IWA = Inside Work Area OWA = Outside Work Area	BAK = Background A = Ambient Air HEX = HEPA Exhaust CL = Clearance Sample	Activity: PREP = Work Area Preparation REM - Removal GB - Glovebag FC - Final Cleaning
			BO = Bagout TD = Tear Down PP - Paint Prep

805169
4.5.6.2.76
Doc No.

KOCH ENVIRONMENTAL HEALTH, INC.
7342 South Moore Court
Littleton, CO 80127
Phone: (303) 932-8484 FAX: (303) 932-8585

URS COPY

Project No. 8045169
File Code No. 4,5,b,2,7
Doc No.

CONTRACTOR PERSONNEL AIR SAMPLING SUMMARY

Client: AC & S	Project Contact: Chuck Shaw	Location: WR Grace Vermiculite Plant-Warehouse building Libby, MT	KEH Rep: Patrick McGuire	
Project: 01001-043			Analysis By: Patrick McGuire	
Date: 9/21/00	Calibration: <input checked="" type="checkbox"/> Rotameter _____ ID <input type="checkbox"/> Other _____ ID	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 sq mm <input type="checkbox"/> other _____ sq mm	PCM Filter: <input checked="" type="checkbox"/> 0.8 um25mm Mft. <input type="checkbox"/> 0.8 um37mm Lot# _____	Other Media: _____ Type _____ Mft. _____ Type _____ Mft.
Name: Jose G. Aguirre	Name: Guillermo Martinez	Name: _____	Name: _____	
SSN: 456-99-8860	SSN: 622-09-2411	SSN: _____	SSN: _____	

TWA: 0.099 f/cc

TWA: n/a

TWA: v/a

TWA: Wa

Comments:

~~24-10-9301 12.555~~

Comments:

Particulate overload

Comments:

Comments

47. 475/480

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

U.S. EPA

Project No.	805169
File Control No.	4.5.6.2.78
Date:	

DATE:	KEH PROJECT #: 01001-043	KEH REP: Patrick McGurran						
SAMPLE #	MICROSCOPE ID #: 1	ANALYST: Patrick McGurran						
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
P03	98.00	98.00/100	98.9/100/00785	124.84	400.00	0.007	0.120	—
P04	particulate overload	—	—	—	728.00	0.004	—	Particulate overload
P05	44.50	44.5/100	44.5/100/00785	56.69	60.00	0.045	0.364	—
P06	51.00	51.00/100	51.00/100/00785	64.97	130.00	0.020	0.474	—
					270.00		0.093	
Blind Recount								

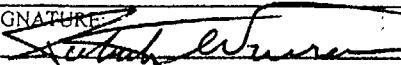
SAMPLING INFORMATION:

Effective Collection Area of Filter:	Microscope Field Area:	NIOSH 7400 Method A Rules
<input checked="" type="checkbox"/> 385 mm ² , 25 mm filter	<input checked="" type="checkbox"/> 0.00785 mm ²	<input checked="" type="checkbox"/>
855 mm ² , 37 mm filter	other (list)	Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS:	<input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
-------------------------	--	--	---	--	--

ANALYST INFORMATION:

DATE: 9/22/00	ANALYST: Patrick McGurran	SIGNATURE: 
---------------	---------------------------	--

KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 7/21/08	CLIENT: URS Radion PROJECT #: 21001-C01	PROJECT CONTACT: Tim Gish	PROJECT LOCATION: WR Blue Vermiculite Plant WORK AREA: Libby, MT	SAMPLING REP: Patrick McGorven ANALYSIS BY: Patrick McGorven	
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: <input type="checkbox"/> 0.8 um 25 mm MCE <input type="checkbox"/> charcoal tubes <input type="checkbox"/> Silica Gel Other, 45 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² <input type="checkbox"/> NA

SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)			FLOW RATE (L/MIN)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> FCC <input type="checkbox"/> ppm <input type="checkbox"/> mg/M ³
				Start	Stop	Total	Start	Stop	Avg.				
301	Field Blank	—	—	—	—	—	—	—	—	—	—	—	9/100
302	Field Blank	—	—	—	—	—	—	—	—	—	—	—	9/100
303/A-27	Perimeter	Location #1 - North of Pole Barn - on perimeter	—	1007	1702	415	6.00	5.00	5.50	2282.50	0.001	0.9/100	< LOQ
304/A-10		Location #2 - NW of Planer Building - on perimeter	—	1028	1707	399	6.00	5.00	5.50	2194.50	0.001	3.0/100	LOQ
305/A-23		Location #3 - West of Planer Building - on perimeter	—	1025	1710	405	6.00	5.00	5.50	2227.50	0.001	2.0/100	< LOQ
306/A-1		Location #4 - SW of Planer building - on perimeter	—	1034	1715	401	5.00	5.00	5.00	2005.00	0.001	9/100	< LOQ
307		Location #5 - South of Warehouse building - on perimeter	—	1048	1722	394	5.50	5.00	5.25	2068.50	0.001	5.5/100	LOQ
308		Location #6 - NE of Lumber storage building - on perimeter	—	1103	1728	385	5.50	6.00	5.75	2213.75	0.001	1.5/100	< LOQ
309	↓	Location #7 - NE corner of property - on stop sign - Highway 37	—	1111	1732	381	5.00	5.00	5.00	1905.00	0.001	1.0/100	< LOQ
310/A-59	OWA	SE of Pole Barn & North of storage shed	—	1039	1718	399	6.00	5.00	5.50	2194.50	0.001	1.0/100	< LOQ
Blind Recount	—	—	—	—	—	—	—	—	—	—	—	—	—

Key: Sample Type: P = Personal Ex = Excursion IWA = Inside Work Area OWA = Outside Work Area	BAK = Background A = Ambient Air HEX = HEPA Exhaust CL = Clearance Sample	Activity: PREP = Work Area Preparation REM - Removal GB - Glovebag FC - Final Cleaning	BO = Bagout TD = Tear Down PP = Paint Prep
--	--	--	--

URS COPY	
Project No.	805169
File Code No.	4,5,b,4,81
Doc No.	

KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET

DATE: 9/21/00	KEH PROJECT #: 21001 - 001 MICROSCOPE ID #: 1				KEH REP: Patrick McGurran			
SAMPLE #	FIBER COUNT	F/N	F/N-B/NB 100	FIBERS/MM ²	SAMPLE VOL. (L)	LOQ (fibers/cc)	FIBERS/CC	COMMENTS
Field Blank B01	0	0/100	—	—	—	—	—	Field Blank
Field Blank B02	0	0/100	—	—	—	—	—	Field Blank
PM03	0.5	0.5/100	0.5/100/.00785	0.164	2282.50	0.001	<LOQ	—
PM04	3.0	3/100	3/100/.00785	3.82	2194.50	0.001	LOQ	—
PM05	2.0	2/100	2/100/.00785	2.55	2227.50	0.001	<LOQ	—
PM06	0	0/100	0/100/.00785	0	2005.00	0.001	<LOQ	—
PM07	5.5	5.5/100	5.5/100/.00785	7.01	2068.50	0.001	-0.001 LOQ	—
PM08	1.5	1.5/100	1.5/100/.00785	1.91	2213.75	0.001	<LOQ	—
PM09	1.0	1.0/100	1.0/100/.00785	1.27	1905.00	0.001	<LOQ	—
A10	1.0	1.0/100	1.0/100/.00785	1.27	2194.50	0.001	<LOQ	—
Blind Recount	—	—	—	—	—	—	—	—

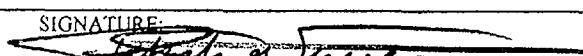
SAMPLING INFORMATION:

Effective Collection Area of Filter: <input checked="" type="checkbox"/> 385 mm ² , 25 mm filter <input type="checkbox"/> 855 mm ² , 37 mm filter	Microscope Field Area: <input checked="" type="checkbox"/> 0.00785 mm ² other (list) _____	NIOSH 7400 Method A Rules <input checked="" type="checkbox"/>
		Other Method _____

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: <input checked="" type="checkbox"/> phase test	<input checked="" type="checkbox"/> micrometer	<input checked="" type="checkbox"/> adjust field iris	<input checked="" type="checkbox"/> adjust phase rings	<input checked="" type="checkbox"/> focus on samples
--	--	---	--	--

ANALYST INFORMATION:

DATE: 9/21/00	ANALYST: Patrick McGurran	SIGNATURE: 
---------------	---------------------------	--

Project No. 805169
File Code No. 4,5,b,4,82
Doc No.

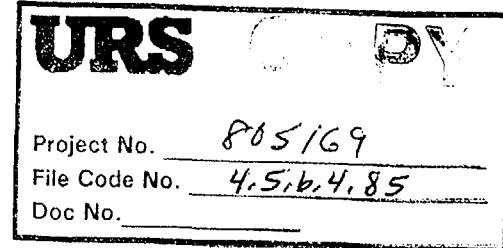
KOCH ENVIRONMENTAL HEALTH, INC.
AIR CONTAMINANT SAMPLING FORM

DATE: 9/21/00	CLIENT: URS Radian PROJECT #: Z1001-001	PROJECT CONTACT: Tom Groves Jim Strat	PROJECT LOCATION: W.R. Grace Vermiculite Mine WORK AREA: Libby, MT	SAMPLING REP: Patrick McGarren ANALYSIS BY: Patrick McGarren								
SAMPLE TYPE: Asbestos <input checked="" type="checkbox"/> (NIOSH 7400) Lead <input type="checkbox"/> (NIOSH 7082) Other <input type="checkbox"/> Method: _____	PUMP CALIBRATION: Rotameter <input checked="" type="checkbox"/> ID _____ Other: _____	FILTER TYPE: 0.8 um 25 mm MCE charcoal tubes Silica Gel Other: 145 TEM	TEM FILTER: <input checked="" type="checkbox"/> MCE <0.45um 25mm <input type="checkbox"/> PC <0.45um 37mm Mfr. _____ Lot No. 1337	FILTER FCA: <input checked="" type="checkbox"/> 385 mm ² <input type="checkbox"/> mm ² NA	MICROSCOPE FIELD AREA: <input checked="" type="checkbox"/> 0.00785 mm ² <input type="checkbox"/> mm ² NA							
SAMPLE NUMBER/ PUMP NUMBER	SAMPLE TYPE	SAMPLE DESCRIPTION, LOCATION	ACTIVITY	TIME (24 HOUR CLOCK)	FLOW RATE (L/MIN.)			AIR VOLUME (L)	DETECT. LIMIT OR LOQ	FIBERS/ PER FIELD	CONCENTRATION <input checked="" type="checkbox"/> f/cc <input type="checkbox"/> other <input type="checkbox"/> ppm <input type="checkbox"/> mg/m ³	
Start	Stop	Total	Start	Stop	Avg.							
B01	Field Blank	—	—	—	—	—	—	—	—	0/100	Field Blank	
B02	Field Blank	—	—	—	—	—	—	—	—	0/100	Field Blank	
A03a		SOUTH OF DRILLING AREA - NEAR GLORY HOLE	SOIL DRILLING	0900	1613	433	1.50	0.75	1.13	489.29	0.006	1.0/100 < LOQ
P04a	P	SOUTH OF DRILLING AREA - NEAR GLORY WHEN DR - DAVE TLIFF	SOIL DRILLING	0910	1628	438	1.50	1.50	1.50	642.00	0.004	2.5/100 < LOQ
Blind Recount												

Key:									
Sample Type:	P = Personal Ex = Excursion IWA = Inside Work Area OWA = Outside Work Area	BAK = Background A = Ambient Air HEX = HEPA Exhaust CL = Clearance Sample	Activity:	PREP = Work Area Preparation REM - Removal GB - Glovebag FC - Final Cleaning	BO = Bagout TD = Tear Down PP - Paint Prep				

URS COPY

Project No. 805169
 File Code No. 4.5.6.4.83
 Doc No. _____



**KOCH ENVIRONMENTAL HEALTH, INC.
ASBESTOS FIBER COUNT WORKSHEET**

SAMPLING INFORMATION:

Effective Collection Area of Filter: ✓ 385 mm², 25 mm filter
855 mm², 37 mm filter Microscope Field Area: ✓ 0.00785 mm²
other (list) NIOSH 7400 Method A Rules ✓
Other Method

ANALYTICAL INFORMATION:

MICROSCOPE ADJUSTMENTS: phase test micrometer adjust field iris adjust phase rings focus on samples

ANALYST INFORMATION:

DATE: 9/21/00 ANALYST: Patrick McGuire SIGNATURE: 